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## Congress of the United States

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MEMORAMDUM FOR MEMBERS OF THE GOVERNMENT REFORM SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS

FROM:

Doug Ose

SUBJECT:

Briefing Memorandum for June 22, 2004 Hearing, "LNG

Import Terminal and Deepwater Port Siting: Federal and State Roles"

On Tuesday, June 22, 2004, at 2:00 p.m., in Room 2154 Rayburn House Office Building, the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs will hold a hearing on Liquefied Natural Gas (LNG). The hearing is entitled, "LNG Import Terminal and Deepwater Port Siting: Federal and State Roles."

## Background

Multiple Federal agencies have various authorities over LNG, including agencies in the Departments of Commerce (DOC), Defense (DOD), Energy (DOE), Interior (DOI), Homeland Security (DHS), and Transportation (DOT), the Environmental Protection Agency (EPA), and the Federal Energy Regulatory Commission (FERC).

FERC authorizes the siting and construction of on-shore LNG import terminals under Section 3 of the Natural Gas Act (NGA) of 1938 (15 U.S.C. §717b, Exportation or Importation of Natural Gas). In the 1970s, FERC authorized such facilities under Section 7 of the NGA (15 U.S.C. §717f, Construction, Extension, or Abandonment of Facilities), which governs natural gas facilities used in interstate commerce. FERC's siting and construction procedural requirements are in 18 CFR §153, Applications for Authorization to Construct, Operate, or Modify Facilities Used for the Export or Import of Natural Gas.

<sup>&</sup>lt;sup>1</sup>Under DOE Delegation Orders Nos. 0204-112 (1984) and 00-004.00 (2002), the Secretary of Energy delegated to FERC the authority to approve or disapprove: (1) the construction, modification and operation of facilities, (2) the siting for such facilities, and (3) the place of entry for imports with respect to natural gas involving construction of new domestic facilities. DOE Delegation Orders Nos. 0204-111 (1984) and 0204-127 (1989) provided that DOE's Office of Fossil Energy would authorize imports and exports of natural gas while FERC would authorize the siting and facilities used for imports and exports.

FERC also authorizes the construction and operation of interstate natural gas pipelines associated with LNG import facilities under Section 7 of the NGA and 18 CFR §§153 et seq., Applications for Authorization to Construct, Operate, or Modify Facilities Used for the Export or Import of Natural Gas, and 157, Applications for Certificates of Public Convenience and Necessity and for Orders Permitting and Approving Abandonment under Section 7 of the Natural Gas Act. In conjunction with its review of on-shore siting applications, FERC serves as the lead Federal agency for National Environmental Policy Act (NEPA) reviews (42 U.S.C. Sections 4321 et seq., 18 CFR §157.6, Applications: General Requirements and 18 CFR §380, Regulations Implementing the National Environmental Policy Act). Many stakeholder agencies consult with FERC during the NEPA process.

Oversight of siting for off-shore deepwater port facilities was also under FERC until Congress passed the Maritime Transportation Security Act of 2002 (MTSA) (Pub. L. 107-295, which added LNG to the definition of substances subject to the Deepwater Port Act of 1974, 33 U.S.C. 1501 *et seq.*). Since 2002, the licensing and siting decisions for off-shore LNG deepwater ports are made by DOT's Marine Administration (49 CFR §1.66 (aa), Delegations to Maritime Administrator) with the involvement of DHS's U.S. Coast Guard (USCG) and other interested agencies.

USCG's procedural requirements are in 33 CFR Subchapter NN, Deepwater Ports, §§148, General, 149, Design, Construction and Equipment, and 150, Operations. USCG also serves as the lead Federal agency for NEPA reviews for off-shore applications (42 U.S.C. §4321 *et seq.*) and consults with other interested Federal agencies.<sup>2</sup>

While FERC and USCG are the agencies ultimately responsible for siting LNG import facilities, determinations and approvals must be forthcoming from many other Federal, State, and local authorities before final approval of a terminal. Applicants typically anticipate having to obtain at least 100 permits. Numerous Federal and State laws pertaining to environmental, safety and security concerns also apply. Most prominent among the other Federal agencies are DOC's National Oceanic and Atmospheric Administration (NOAA), DOD's Army Corps of Engineers, DOI's Minerals Management Service, DOT's Research and Special Programs Administration (RSPA), and EPA.

<sup>&</sup>lt;sup>2</sup> With regard to on-shore facilities, USCG issues regulations governing safety and security of port areas and navigable waterways under E.O. 10173, "Regulations Relating to the Safeguarding of Vessels, Harbors, Ports, and Waterfront Facilities of the United States," the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (16 U.S.C §1801 et seq., 33 CFR §6, Protection and Security of Vessels, Harbors, and Waterfront Facilities), the Ports and Waterways Safety Act of 1972 (33 U.S.C. §1221 et seq., 33 CFR §§160, Ports and Waterways Safety – General, 165, Regulated Navigation Areas and Limited Access Areas, and 127, Waterfront Facilities Handling Liquefied Natural Gas and Liquefied Hazardous Gas), and MTSA (46 U.S.C. §701 et seq., 33 CFR §§101, General Provisions, and 105, Facility Security). USCG is also responsible for navigation safety, vessel engineering and safety standards and all matters pertaining to the safety of facilities or equipment in or adjacent to navigable waters under the Hazardous Materials Transportation Act (49 U.S.C. §51).

An example of extensive involvement from another Federal agency is the role of DOT/RSPA's Office of Pipeline Safety (OPS). OPS has authority to regulate the safety aspects of siting, design, installation, construction, initial inspection, initial testing, operation and maintenance of LNG facilities (49 U.S.C. §60101 et seq., The Natural Gas Pipeline Safety Act of 1968) They are set forth in 49 CFR §193, Liquefied Natural Gas Facilities: Federal Standards.

State agencies address a multitude of environmental concerns. In addition to applicable State laws, 33 coastal States exercise delegated authority under the Coastal Zone Management Act of 1972 (CZMA) and have adopted Coastal Zone Management Plans (CZMPs). Siting of LNG import terminals must be consistent with the CZMP of the applicable State. NOAA has promulgated regulations governing consistency review under the CZMA (15 CFR §930, Federal Consistency With Approved Coastal Management Programs).

As of this time, no State has a comprehensive, statutory scheme addressing LNG import facilities, though several regulate LNG storage facilities. California's LNG Terminal Act of 1977 (SB 1081 signed by the Governor on September 16, 1977) was repealed in 1987. On October 30, 2003, the California Public Utilities Commission (CPUC) notified the proponent of a proposed import terminal at the Port of Long Beach that it was asserting jurisdiction over siting on the grounds that the facility would be a public utility under California law subject to CPUC regulation. On March 24, 2004, FERC issued a "Declaratory Order Asserting Exclusive Jurisdiction" under Section 3 of the NGA. The question of whether FERC possesses exclusive jurisdiction over siting of on-shore facilities turns on interpretation of the NGA.

## Energy Policy

Demand in the United States for natural gas rose sharply in the 1980s in reaction to international oil supply problems. Because of its environmental merits relative to other fossil fuels, demand for natural gas continues to grow. Today, natural gas provides nearly one-quarter of U.S. energy requirements. It provides about 19 percent of electric power generation nationally and is a clean fuel for heating and cooking in over 60 million U.S. households. U.S. industries obtain over 40 percent of their primary energy from natural gas. It is used both as an energy source and as a raw material.

According to the DOE's Energy Information Administration's (EIA) Annual Energy Outlook 2004, world energy demand will increase by 60 percent from 1997 to 2020, and U.S. energy demand over this period will increase by about 27 percent, a third of which could be for natural gas. Most new electricity generation capacity, especially in California, is expected to be fueled by natural gas because of the environmental advantages and because it requires lower capital costs and shorter construction lead-time. Natural gas prices reflect the growing demand.

Most energy experts believe that the United States should address supply needs through increases in both imports and domestic production.

Over the past year, the demand for natural gas in the United States has outstripped supply. The amount of natural gas in underground storage has dropped by 32 percent and the price of natural gas has nearly doubled. Alan Greenspan, Chairman of the Federal Reserve, has stated on several recent occasions that LNG imports should play a more significant role than they do now.<sup>3</sup>

Liquefied natural gas supplies between 1-2 percent of U.S. natural gas consumption. EIA forecasts that, by 2010, LNG imports will increase and supply 8 percent of U.S. consumption.

LNG typically is exported from stranded reserves. North Africa, West Africa, South America, the Caribbean, Middle East, Indonesia, Malaysia, Northwestern Australia and Alaska are LNG source regions today. According to the CEC, worldwide there are currently 17 LNG export terminals and 40 LNG import terminals, 23 of which are in Japan (which accounted for 48 percent of worldwide imports in 2002) and many more are planned. LNG import terminals exist also in South Korea and Europe, as well as in the United States, which currently has five import terminals. Four of the five are on-shore terminals built in the Continental United States between 1971 and 1980: Everett, Massachusetts (1971), Cove Point, Maryland (1974), Elba Island, Georgia (1978), and Lake Charles, Louisiana (1981). The fifth is Penuelas, located in Puerto Rico (2000).

LNG imports peaked at 1.3 percent of U.S. natural gas demand in 1979 but declined thereafter because of an overall natural gas surplus. In 1980 and 1981, Elba Island and Cove Point were mothballed. They were reactivated in 2001 and 2003, respectively. Applications for expansion of each of the facilities were approved in January 2001, March 2002, April 2003 and October 2003 respectively. An application for an additional expansion of the Lake Charles, Louisiana facility is pending. More applications for expansion are anticipated.

There are, furthermore, over 100 active LNG storage and operation facilities in the United States, some of which pertain to niche markets such as vehicular fuel. Most of these facilities were constructed between 1965 and 1975 as storage for utilities. Approximately 55 local utilities own and operate LNG plants as part of their distribution networks.

Five additional import terminals have been approved, none of which, however, are on the West coast. Applications for siting of approximately 35 other terminals are pending or are anticipated to be filed in the lower 48 States, Canada, Mexico and the Bahamas (ten of which are foreign). Of these, approximately six or seven are on the West coast: one in Washington State, two in Baja California, one on-shore in California

<sup>&</sup>lt;sup>3</sup> "If North America natural gas markets are to function with the flexibility exhibited by oil, unlimited access to the vast world reserves of natural gas is required. Markets need to be able to effectively adjust to unexpected shortfalls in domestic supply. Access to world natural gas supplies will require a major expansion of LNG terminal import capacity. Without the flexibility such facilities will impart, imbalances in supply and demand must inevitably engender price volatility (Alan Greenspan testimony before House Energy and Commerce Committee, June 10, 2003).

and two or three off-shore in California. Several California proposals have come to deadends. Attached is a map showing all currently pending on-shore and off-shore LNG projects.

Industry members state that local public approval of projects is essential to success; however, in California and elsewhere, local groups have been very active and influential in impeding or stopping development.

LNG import facilities are complex projects and their siting requires extensive planning, private investment in excess of 400 million dollars and significant government agency resource commitment of time and expertise. Consideration of many layers of policy objectives is required, including national and regional supply needs, domestic energy market balances, public safety, environmental effects, and aesthetic attitudes.

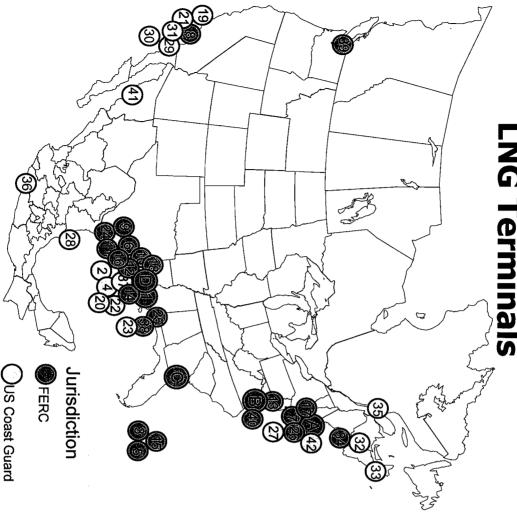
The hearing will consider the efficiency and effectiveness of the current regulatory system.

## Witnesses

The invited witnesses for the hearing are: Patrick H. Wood, III, Chairman, FERC; David Garman, Acting Under Secretary, DOE; Rear Admiral Larry Hereth, Director, Office of Port Security, USCG, DHS; Jay Blossman, Commissioner, Louisiana Public Service Commission; Joe Desmond, Deputy Secretary, Energy, California Resources Agency; Kenneth D. Schisler, Chairman, Maryland Public Service Commission; Donald Santa, President, Interstate Natural Gas Association of America; and, Philip Warburg, President, Conservation Law Foundation.

## Attachment

## Existing and Proposed North American LNG Terminals



**June 2004** 

# Office of Energy Projects

# **Existing Terminals with Approved Expansions**

A. Everett, MA: 1.035 Bcfd (Tractebel – DOMAC)

B. Cove Point, MD: 1.0 Bcfd (Dominion -- Cove Point LNG)

C. Elba Island, GA: 1.2 Bcfd (El Paso – Southern LNG)

D. Lake Charles, LA: 1.2 Bcfd (Southern Union – Trunkline LNG)

L. Hackberry, LA: 1.5 Bcfd, (Sempra Energy)

2. Port Pelican: 1.6 Bcfd, (Chevron Texaco

3. Bahamas: 0.84 Bcfd, (AES Ocean Express)\*

Gulf of Mexico: 0.5 Bcfd, (El Paso Energy Bridge GOM, LLC)
 Bahamas: 0.83 Bcfd, (Calypso Tractebel)\*

## <u> Proposed Terminals and Expansions — FERC</u>

6. Freeport, TX: 1.5 Bcfd, (Cheniere / Freeport LNG Dev.)

7. Fall River, MA: 0.8 Bcfd, (Weaver's Cove Energy)

9. Corpus Christi, TX: 2.6 Bcfd, (Cheniere LNG Partners) Long Beach, CA: 0.7 Bcfd, (SES/Mitsubishi)

10. Sabine, LA: 2.6 Bcfd (Cheniere LNG)

Corpus Christi, TX: 1.0 Bcfd (Vista Del Sol/ExxonMobil)
 Sabine, TX: 1.0 Bcfd (Golden Pass/ExxonMobil)

13. Logan Township, NJ: 1.2 Bcfd (Crown Landing LNG – BP)

14. Lake Charles, LA: 0.6 Bcfd (Southern Union – Trunkline LNG)

Bahamas: 0.5 Bcfd, (Seafarer - El Paso/FPL)
 Corpus Christi, TX: 1.0 Bcfd (Occidental Energy Ventures)

Port Arthur, TX: 1.5 Bcfd (Sempra) 17. Providence, RI: 0.5 Bcfd (Keyspan & BG LNG)

## <u> Proposed Terminals - Coast Guard</u>

California Offshore: 1.5 Bcfd, (Cabrillo Port – BHP Billiton)

21. So. California Offshore: 0.5 Bcfd, (Crystal Energy) Louisiana Offshore: 1.0 Bcfd (Gulf Landing – Shell)

22. Louisiana Offshore: 1.0 Bcfd (McMoRan Exp.) 23. Gulf of Mexico: n/a (Compass Port - ConocoPhillips)

## <u>Planned Terminals and Expansions</u>

 Mobile Bay, AL: 1.0 Bcfd, (ExxonMobil) 24. Brownsville, TX: n/a, (Cheniere LNG Partners)

26. Somerset, MA: 0.65 Bcfd (Somerset LNG)
27. Belmar, NJ Offshore: n/a (El Paso Global)

28. Altamira, Tamulipas: 1.12 Bcfd, (Shell)

30. Baja California - Offshore: 1.4 Bcfd, (Chevron Texaco) 29. Baja California, MX: 1.0 Bcfd, (Sempra & Shell)

31. California - Offshore: 0.5 Bcfd, (Chevron Texaco)

34. Searsport, ME: n/a 32. St. John, NB: 0.5 Bcfd, (Canaport – Irving Oil) 33. Point Tupper, NS 1.0 Bcf/d (Bear Head LNG - Access Northeast Energy)

35. St. Lawrence, QC: n/a (TCPL and/or Gaz Met)

37. Gulf of Mexico: 1.0 Bcfd (ExxonMobil) 36. Lázaro Cárdenas, MX: 0.5 Bcfd (Tractebel/Repsol) 38. Mobile Bay, AL: 1.0 Bcfd (Cheniere LNG Partners)

42. Offshore Boston, MA: 0.8 Bcfd (Northeast Gateway – Excelerate Energy) 41. Puerto Libertad, MX: 1.3 Bcfd (Sonora Pacific LNG) 40. Cove Point, MD: 0.8 Bcfd (Dominion)

\*US pipeline approved; LNG terminal pending in Bahamas

39. Cherry Point, WA: 0.5 Bcfd (Cherry Point Energy LLC)